

FY16 GRC: Bio-Inspired Seal Technology

Completed Technology Project (2015 - 2016)



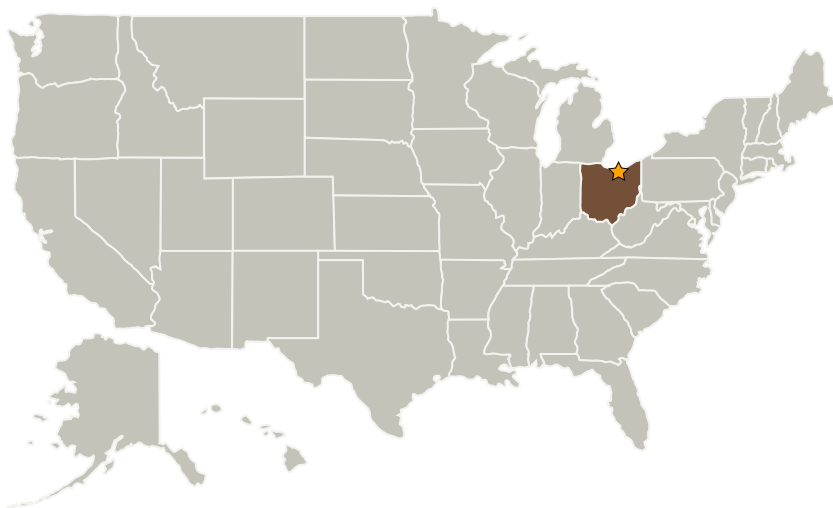
Project Introduction

Investigate the thermal and biological features of penguin feathers to determine their applicability to thermal seals.

Anticipated Benefits

Possible application to thermal protection systems, deployable decelerators, and advanced spacesuits.

Primary U.S. Work Locations and Key Partners



| Organizations Performing Work | Role | Type | Location |
|-------------------------------|-------------------------|-------------|-----------------|
| ★ Glenn Research Center(GRC) | Lead Organization | NASA Center | Cleveland, Ohio |
| Akron Zoo | Supporting Organization | Industry | Akron, Ohio |
| University of Toledo | Supporting Organization | Academia | Toledo, Ohio |



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Glenn Research Center (GRC)

Responsible Program:

Center Innovation Fund: GRC CIF

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Primary U.S. Work Locations

Ohio

Project Website:

<https://www.nasa.gov/directorates/spacetech/home/index.html>

Project Management

Program Director:

Michael R Lapointe

Program Managers:

Kurt R Sacksteder

Gary A Horsham

Project Manager:

Gary A Horsham

Principal Investigator:

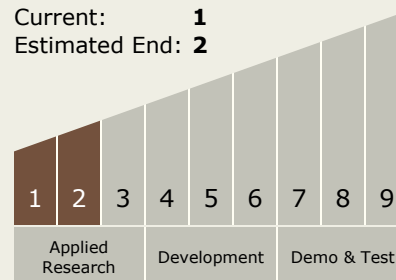
Patrick H Dunlap

Technology Maturity (TRL)

Start: 1

Current: 1

Estimated End: 2



Technology Areas

Primary:

- TX14 Thermal Management Systems
 - └ TX14.2 Thermal Control Components and Systems
 - └ TX14.2.8 Measurement and Control